**MavenMarketProject**

Maven Market is a multinational grocery chain who manufactures and distributes various kinds of products. Their supply limits to three countries - Canada, Mexico, and the United States. With the initial raw data as a folder of CSV files containing information about transactions, products, customers, returns and regions I started this project and created a report.

Main Objectives are to:

1. Track KPIs (sales, revenue, profit, returns)
2. Create a relational model by shaping the data.
3. Create a visual to drill down product trends from Country to City.

The 3 key questions that I answered are

* 1. What type of data I will be working on?
     + Time Series, Categorical, Geospatial
  2. What do I want to communicate?
     + **Comparison** and **Composition** of different products and customer purchase trends.
  3. Who my end user is?
     + In my case Managers are my end users & they main objective is to know how their company is performing.

Based on the analysis that I made I have created following pages with different visuals:

1. Topline Performance page is created to depict KPIs.

Tree Map is used to create a drill down approach from Country to City.

Slicer was created to filter metrics country wise.

1. In the Notes page I have generated metrics for top customer based on revenue in each year.

The steps involved were as follows:

1. **Connecting and Shaping Data**
   * Extracted the data from raw CSV files into the Power Query Editor
   * Modified data types and cleaned null values/duplicates.
   * Added new columns wherever it seemed necessary and merged few queries.
   * Verified some metrics through Data Profiling options.

The above is done using Query Editor in the back end.

1. **Data Modeling**
   * After ETL, now at the front-end I created a data model utilizing star and snowflake schemas, including one-to-many relationships.
   * Cardinality is checked.
   * Active & Inactive relationships were taken care of.
   * Followed Downstream flow.
2. **Data Processing**
   * Calculated columns and Explicit Measures were created using DAX.
3. **Visualizing Data with Reports**
   * Developed a fully interactive dashboard with different pages.
   * Various visuals such as map, KPI cards, matrix, tree map, gauge chart were used.

**Insights:**

* + The USA leads with the highest profit, transactions, revenue, and orders among the others.
  + Mexico stands with highest returns in the current month.
  + Hermanos Green Pepper stands tall by generating most revenue among products.
  + Ida Rodriguez is the topmost revenue generator among all customers.